Remarks by NASA Deputy Administrator

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Good afternoon and thank you for that introduction, Patti. Patti has been a very positive force for our nation's space effort.

I am pleased that I am speaking with you, members of the American Bar Association, because it is NASA's legal framework, the National Aeronautics and Space Act of 1958, that created NASA, and it is this Act that enables us to accomplish all the wonderful things we have done over the past 51 years and that will allow us to achieve even more this year and in the years to come.

NASA achievements have rewritten science textbooks, inspired a generation, and helped establish America as the world's leader in advanced technology and scientific achievement. Our astronauts have left their footprints on the Moon, and our scientists have unraveled the mysteries of Earth's climate and oceans, discovered evidence of water on the Moon and Mars, and looked back through time at the universe's most distant objects.

All of these headlines are well known. But there is a NASA less talked about. NASA has made every commercial airplane flight safer for the flying public. It is an agency that moves the technologies it creates for space travel out into new entrepreneurial businesses. It is an agency whose creations not only explore the stars but have become indispensible to every medical clinic, fire station, and hospital in the nation.

Whether it be in the sky or beyond it, none of these achievements would be possible without the legal structure that gave birth to NASA more than a half century ago. It was at the height of the Cold War when the Soviet Union launched the first Earth orbiting satellite. America's initial response, the attempted launch of the Vanguard, ended in an embarrassing failure. President Eisenhower decided that a new civilian agency should be

established to direct all of the nation's civil space activities. In the U.S. Senate, Majority Leader Lyndon Johnson, a strong advocate for a strong space effort, began drafting legislation that would fold the existing National Advisory Committee on Aeronautics and its test facilities into this new agency. Johnson turned to a key staffer to draft the bill and be a liaison with all of the interested parties in the government, including the military.

Known fondly to us as "The Grand Dame of Space Policy," Dr. Eilene Galloway worked with other Senate staffers including Dr. Glen Wilson to craft hearings and write what would become the National Aeronautics and Space Act, which would give birth to NASA on October 1, 1958. We often think about her as begin drafting this Administration's space policies. In March 2009, Dr. Galloway stated, "NASA faces important policy questions in mapping our future in space. How will the public and Congress be informed so that they can decide whether to support a long-term commitment to a Moon-Mars exploration program? What will NASA's guidelines be for working with other nations on mission to the Moon and Mars? Will NASA seek international partners for both human and robotic missions? What policy will be followed if and when exploration leads to commercial uses? What sort of regulatory framework will be needed for such activities?" Galloway's work was truly ground breaking, for while the

exploration of space had the nation's attention largely due to movies and science fiction stories, the actual space flights had barely just begun. "The only thing I knew about Outer Space at that time," she joked, "was that the cow had jumped over the Moon!" Dr. Galloway's legacy is literally out of this world.

A founding member of the International Institute of Space Law, many members of which are here today, she remained active right up to her passing last year at the incredible age of 102. All of us in the space business owe Eilene Galloway a debt of gratitude for blazing the trail that we all have followed.

The Space Act gave NASA its charge – to conduct exploration and research into space and aeronautics, and to disseminate as widely as possible the information these missions obtained. NASA is working diligently to carry out this mandate. For instance, we have recently revised and improved our FOIA request and response process.

An important objective stated in the Space Act is, "Cooperation by the United States with other nations and groups of nations in work done pursuant to this Act and in the peaceful application of the results thereof." Again in March 2009, Dr. Galloway wrote, "The guiding principles that

nations adopted at the beginning of the Space Age have brought 50 years of maintaining space for worldwide beneficial uses. At this time, when policies an dprograms are being examined, it is useful to consider why and how this ongoing success in avoiding space wars was achieved." The International Space Station is a great example of this objective. The International Space Station has brought together an international coalition of 15 nations, made possible by a legal framework that sets forth each partner's responsibilities to provide logistics services, equipment, research capabilities, and astronauts. As the partnership grows and expands in the future, that legal framework will evolve to meet the challenge of station utilization. Since the first element was launched in 1998, the ISS has been the tool by which NASA has learned to work cooperatively, treating our partners as equals in this long term space experiment. And of course, we have literally hundreds of other international agreements.

The Space Act also includes the mandate to "seek and encourage, to the maximum extent possible, the fullest commercial use of space." And NASA is complying with that mandate. As completion of the station approaches, NASA is pursuing new partnerships that may truly open the doors of space to the commercial and entrepreneurial community, the Commercial Resupply Services program, focused on bringing cargo to the

station by private companies. We are transitioning our activities in low Earth orbit. To help train our astronauts and for research purposes, we buy flights aboard microgravity aircraft. And, we are studying the possibility of flying American astronauts aboard future generations of privately owned and operated orbital spacecraft. And we watch with interest other commercial ventures such as Richard Branson's SpaceShip 2 which as unveiled a few weeks ago.

It may be that the International Space Station, born in the hottest days of the Cold War, becomes a destination for a whole new era of private spaceflight, much as the Air Mail helped give rise to the commercial aviation industry.

Another objective of the Space Act is, "the improvement of the usefulness, performance, speed, safety, and efficiency of aeronautical and space vehicles." In aeronautics, NASA research is dedicated to improving flight safety for both the public and the commercial aviation industry so crucial to the public and this audience. Some 25 percent of all company sales in the U.S. depend on air transportation. The aviation sector is home to more than 655,000 jobs, so a healthy and safe aviation sector is vital to the nation's economy. NASA's aviation safety program performs cutting-

edge research aimed at innovative concepts and new technologies. This work will make today's aircraft fly safer, and make the next generation of aircraft safer still. Our unique partnership with academia and industry has become a model for the world to follow, and perhaps can be a model for our relationship with aerospace, and inspires the next generation of aeronautical engineers.

NASA is also turning to the future of green aviation. Our research into environmentally compatible aircraft engine emissions, biofuels, noise reduction and improved ground logistics are among the most important priorities of NASA and the Obama Administration. OMEGA is just one project that NASA is pursuing. In this project we are turning algae into biofuel. We are also working on the next generation of air traffic control system. When operational, this new system will establish new ways to meet the exploding demand for air transportation services, reduction in flight delays, and a reduction in emissions from future generations of jet engines. With more than half of all U.S. aviation facilities 52 years old or older, we are working on a new aviation infrastructure for the 21st Century that will improve air safety while making the flying experience better for us all.

And so, what will 2010 bring? Tonight, the President will give his State of the Union address. Within days, he will release his budget for 2011 which will include NASA's budget and guidance and his direction for NASA – A NASA truly worthy of the 21st Century.

Whatever direction that takes, you can be assured we will be challenged to find new and innovative ways to carry out the 1958 Space Act and to communicate about our missions and how our agency gives value to the American public. Thus education and public participation are increasingly important steps that will be part of everything we do and every mission we fly.

The year ahead promises more of the same from NASA…exciting discoveries, new opportunities with new partners from the commercial sector and international community, and many other achievements that we can't even imagine today but using the framework set out by people like you 50 years ago. I invite you all to help be a part of this evolving story of science and exploration.

Let's continue the journey. Luckily for me, since I am in a room of lawyers, I called Linda Billings to make sure I got the following quote from Eilene Galloway right. Eilene Galloway said, "Be fearless and be correct!"

Thank you.